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February 1992



# approach

The Naval Aviation Safety Review



**Are** you willing to admit that you have stepped over the line? The line is the boundary between the wrong choice and a calculated risk: time from bottle to throttle, minimum crew rest, unbriefed maneuvers, bingo fuel, low-level SOP altitudes.

The lines exist because others have crossed them and it was a one-way trip. Aviators are not immune to human limits, mistakes, or lapses. The lines offer a measure of protection against our weaknesses.

There are zones around the lines. The zone before a line is safe and allows small missteps. The one after the line is like a crumbly cliff edge. When you enter the second zone you take a risk bal-

anced against your abilities and your limitations. When you push the limits a few stones tumble into the valley.

There are many unknowns every time you fly. The complicated mechanisms that make up your airplane can fail. Another aircraft can try to occupy your piece of sky. A controller can give you a vector into cumulus granite. A safe flight requires your complete attention and unhampered skills. If you are over a line, you have reduced the margin for error.

Over the line is a dangerous and foolish place to spend your life. Often you can survive crossing a line. Some aviators dart back and forth over various lines throughout their careers.

Many forays over the line become lore, told and retold by wanna-be Dangerboys over brews at the club. Some become stories in *Approach*. (see page 22) The worst case scenarios are MIRs with statements like "wanton disregard" or "NATOPS violation".



Lt. Steve Halsted



Via Lt. James Eberhart VF-211



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INCORRECT ISSUE NUMBER, SHOULD READ NUMBER 8.





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# approach

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On the cover: Hustle on the flight deck. A VFA-87 Hornet prepares to launch from USS *Theodore Roosevelt* (CVN-71). (Photo by PHC(AW) Denis Keske)

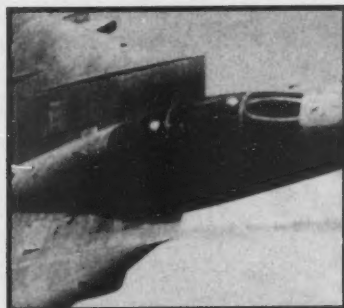
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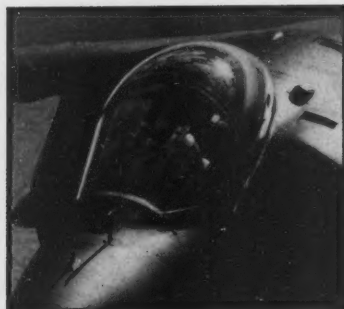
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# Mayday!

By Peter Mersky

## We're Going In!



TWO RH-53Ds launched on a starboard side sweep, Mk-103 mission (mechanical minesweeping). A Coast Guard cutter would be in the op area to retrieve the inert mines that the helicopters would cut. It was mid-day, and the weather was good, but the sea state was high, with 8-10-foot swells.

One of the Sea Stallions arrived in the area and the five-man crew prepared for the mission. Before they did so, however, they felt severe vibrations in the aircraft and it began to yaw slowly to the right. The helicopter began to lose altitude.

"Mayday! Mayday!" the HAC called. "We're going in!" He barely had time to shut down the engines before the huge aircraft slammed into the water 100 feet below. (Later, investigators estimated a time of only 12 seconds from the initial vibrations to the impact.) The force of the impact against the big swells bent the helicopter, buckling its cabin flooring. The RH-53 began to sink immediately, initially trapping its crew in the 55-degree water that flooded and swirled its way into the cockpit and cabin.

One of the cockpit's chin bubbles burst on impact and the helicopter's flight deck quickly submerged into the churning green water. The HAC and his copilot unstrapped underwater and thrust themselves from their seats, going out the right and left side windows, respectively.

"I found my reference point," the pilot remembered, "and made a textbook egress."

*I wanted to get free of the aircraft but not come up yet, to make sure that the main rotor blades had stopped. There was so much air in my dry suit that I came to the surface immediately. I thought I'd get my head chopped off, but the rotor blades were gone. I heard them hit the water, but I didn't know they had broken as well. Each one of those blades weighs 300 pounds."*

While he and his copilot were able to quickly escape, the HAC's three crewmen in the cabin were having a much harder time.

The first crewman recalled his difficulty.

*Just before the aircraft hit the water, I turned around to try to get forward, but I didn't make much headway. I think that the ICS reel wasn't feeding out any line. I tried to take a few steps forward, but then thought I was running out of time. I wasn't sure how far off the water we were.*

*The aircraft was nose up—I felt it was—and I thought it was spinning. Once my inner ear was messed up, I wasn't too sure about anything. It was like that chair in physiology training.*

*I decided to kneel down to lay flat on the deck, to absorb the impact. That's what we learn in egress training, but I didn't get past a crouched position. I misjudged how far we were from the water. I also couldn't believe this was happening to me. I'm good at my job, and I pay attention to detail, yet here I was in this fix.*

*I was on the balls of my feet, crouched down; my knees were not on the deck. My left hand held part of the mainframe of the helicopter, with my right hand braced against the hydraulic winch pallet. The impact made me collapse to the deck. I remember getting hit by something, I'm not sure what. I felt I got hit in the arm. My right shin struck the winch pallet. Both ankles were severely sprained. The engineers figured the impact to be around 14 Gs, although I was far enough aft that they don't think I took the full effect.*

As the first crewman struggled, the second crewman was also having problems.

*As soon as I heard the bang, I reached around, almost by reflex, to my gunner's belt to disconnect it from around my chest. I knew that I couldn't reach high enough or quickly enough to disconnect it from the tether line. I had thought about it throughout the three years I had been flying this aircraft. I would consider possible scenarios and think about my reaction time.*

*The HAC's call that we were going in was the last thing I heard over the ICS, before I disconnected the cord and belt. I stepped forward, but the junior crewman had knelt down between the dam and the winch. It looked like he wasn't going to move. He might have been preparing himself for the impact but I doubt it. He was crouching.*

*Everything they teach in FRAC—fleet replacement aircrew—training tells you to move as far forward as possible. It looked like he was not certain about what to do. He was between me and the exit point. I disconnected his gunner's belt from his chest and motioned for him to go forward. Then I went around him. The area is so narrow. He turned around and moved forward, especially after I tugged him to reinforce my instructions. He looked like he felt like the*

*rest of us, really scared. All this happened in perhaps three or four seconds.*

The second crewman's position contributed to his injuries.

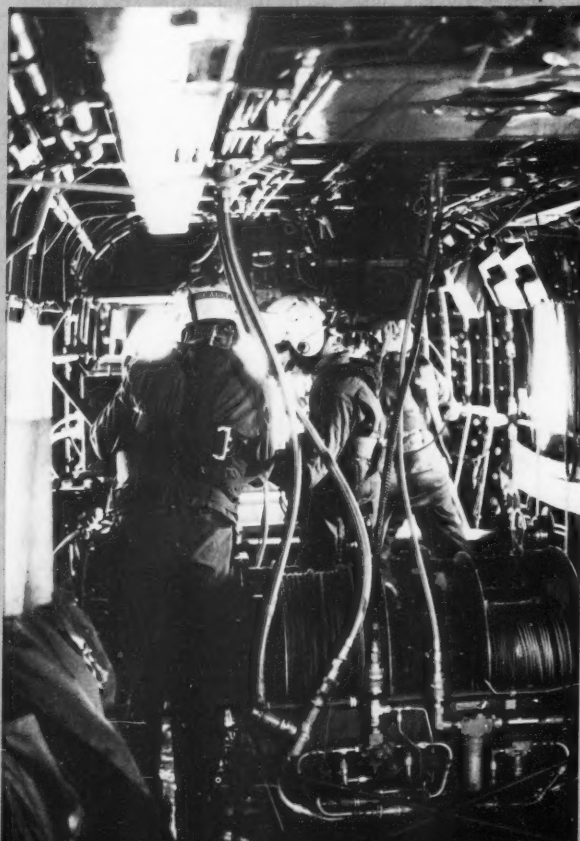
*I didn't sit on the troop seat because I thought it might collapse on impact. In retrospect, it might have been better if it did collapse when I was sitting on it. Instead, I sat on the deck with my right ankle tucked under my buttocks. My left leg was bent slightly in a crouch position so that I could have a better spring to get up and get out of there. The ankle was between the deck and my rear. This was probably not a good position because I bruised my right ankle as the aircraft came up on impact. My right ankle was also bruised, as well as my pelvis.*

*I was sitting just aft of the cabin door. The aircraft struck the water and the door immediately burst open. The water flooded in, washing me to the other side of the cabin, even though I had a death grip on the seat. I was standing right after the impact, trying to stand. My gloves were soaked and slippery and I couldn't hang on to my reference point. The water spun me around so that I was facing to the left and looking out the closed gunner's window on the left side of the helo.*

*I looked out and saw water coming up two-thirds of the window. I remember seeing the contrast of the sky and the water, and the sky was rapidly disappearing. I looked forward and saw that the pilot on the right side was gone; I couldn't*

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Peter Mersky





see the pilot on the left. I wondered how long I had been there.

The first crewman was now desperately trying to get out of a small window on the left side of the cabin. He did not see the second crewman on the other side and farther forward in the cabin.

I have a really good visual image of foam building up in the corners, and of little pieces of gear floating on top of the water. I thought I was alone in the aircraft. I was the last one out, but it's hard to judge. I told the mishap board, "I don't have the whole video tape, just snapshots."

I was standing, with my right hand on the window strap to remove the window. I am left-handed, so everything I do is oriented to the left. I looked to the left, toward the ramp. I saw plenty of daylight, but the water was pouring in. I remembered my egress training and said, "Not an option." There is so much gear back there that the chance of getting past it without getting caught is pretty slim.

The helicopter was sinking quickly; it was totally gone in 15 seconds. The impact split the floor open like an asphalt road in an earthquake. Water was not only coming through the doors, but through the floor and from the cockpit.

4 The 9D5 procedures are to wait until all motion stops before you egress. I don't remember hearing the impact of the rotor blades; I was probably still in a daze. If your normal escape route is through an unequal balance of water, you run the risk of getting washed away after pulling the window or the door, or at least losing your balance or orientation. I didn't want to open the window and face all that water coming in.

With one hand on the strap, and one on the O-ring around the window, I stood there, waiting for the helicopter to sink. Somewhere in that mix, I tried to get my HEED bottle out but couldn't. The velcro strap around the bottle was too tight.

Instead, I grabbed the whole pouch, pulled my vest up, turned my head to the left, and put the HEED bottle in my mouth. I watched the water and the window out of the corner of my eye. When the window just about went under the water, I pulled the strap and the window came out as I shut my eyes. I took one or two breaths from the HEED bottle.

Then, I worked my way out of the window, head first. I don't really know if I put my hands out first, but I remember getting caught because the window was so small. I wore a full set of longjohns, my dry suit and liner, my flight suit, my helmet and my SV-2, along with my gloves. I probably weighed about 220 pounds, although my normal weight is 175 pounds.

I went out the window and the vest snagged. I lowered myself back into the aircraft, not by much, to dislodge whatever it was that had snagged. I shimmied my chest and

got out.

As I broke the surface, I immediately smelled and tasted the jet fuel in the water. We had about 10,000 pounds on board when we crashed; it had only been about half an hour since we had launched.

With the other four crewmen out, the second crewman was the last man in the sinking helo.

I looked back and saw the first crewman standing up trying to get out of the window. This might have been the first time when he tried

to get out but couldn't. When I looked again he was gone, and I was alone in the aircraft. We had talked a lot about whether we could fit through the windows with all our equipment. We know we can, at least in practice, but in a real situation...

The HEED bottle is definitely in the wrong place. I couldn't get it out. I jerked on it hard and had to finally lift my



Rick Mullen

whole vest and bend down to use it. When the water was over my head I took a breath. With the intense anxiety I felt and the cold water, I found it very hard to breathe. If I had not had the HEED bottle, things would have been much worse, although I am sure I could have gotten out without it. I probably would have inhaled some water.

The water was quickly rising up my legs, and it was cold. I shuddered, but it brought me around, back to consciousness.

**The helicopter was sinking quickly;  
it was totally gone in 15 seconds.  
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Peter Mersley

*While it is one of the Navy's most feared training devices, most graduates of the training praise the 9D5's effectiveness.*

*Then I was suddenly and completely immersed. It was totally dark.*

*I didn't want to open the gunner's window because the water would just come in. "How am I going to get out of here?" I thought. "I'm not gonna die here."*

*I turned around and saw a last glimmer of light coming through the personnel door. That is always a concern, whether that door will fall on impact.*

*The light shone through the water; we were already under water. It was amazing that we had not capsized. I saw the light and pulled myself out and floated up to the surface. I hadn't popped my lobes yet. I hit the rescue hoist—I knew what that was—kicked off from the side of the aircraft and swam off. I took five or six good strokes to get to the surface.*

*Eventually all five men broke the surface and found themselves in the roller-coaster ride of their lives. As they rode up the crest of the swells they could see the shore and the Coast Guard cutter bearing down on them. When they descended into the troughs of the rolling swells, they were surrounded by water.*

*After linking up, lobe to lobe, they called again on their PRC-90 radios. They could see and hear the second RH-53 as it circled over them, indicating to the cutter where they were.*

*The two pilots and the junior crewman had minor injuries, but the first crewman's ankles were rapidly swelling inside his flight boots and the second crewman had hurt his ankles and back.*

*The Coast Guard cutter heaved to and its crew quickly lowered a cargo net. The uninjured aircrewmembers climbed up the net, but the first crewman needed help.*

*I got about half-way up the net and couldn't make it the rest of the way. I looked up at the people and just shook my head. At the same time, about six or eight arms reached over and grabbed me. It wasn't just a haul; I was airborne, as*

*they pulled me over the side. I was standing on the deck with a guy under each arm, while another asked me how I was doing.*

*The cutter lowered a whaleboat which retrieved the second crewman. "I tried going up the net," he said, "but I couldn't make it. My back hurt so badly, I didn't realize how bad until I tried to climb that net."*

*Every aircrew member knows the 9D5 dunker. The device has an almost Jekyll-Hyde personality. While it is one of the Navy's most feared training devices, most graduates of the training praise the 9D5's effectiveness.*

5

*The cabin crewmen have definite ideas about their training's contribution to their survival. "I really have to credit the training I received in physiology," the first crewman said. "The training got me out of the aircraft."*

*The second crewman commented, "If I had not had that training, I might not have survived. The dunker training should be more regular, maybe once a year, instead of the current four-year requirement."*

*If you are ever in an emergency situation, you need that training. Like those people who have never been there, I would have said, "Every four years? That's fine." But now, that's not enough. I suggest once every year, or at least every two years.*

*We should also not treat these sessions as "refreshers." We should go through training as though it was our first time. The instructors don't pay too much attention to you if they know you've done this before. They think you've been flying for so long...*

*Each survival situation is different. You have time to think about some decisions; for others, you have to decide immediately. Increasing your chance of survival depends on making the right choices. These five men survived a disastrous situation by combining their own individual courage and instincts with Navy training.*

# Lose Sight, Lose the Fighter

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By LCdr. Mike Rabens



**I**t was a night recovery under perfect conditions. After almost a month in the Hawaiian operating areas, we were finally headed west for the real part of cruise. The deck was steady, the moon bright, and I was a second-cruise LSO and team leader. We got word that a Tomcat was RTB single-engine so we took out the book to review recovery specifics.

The staff LSO took the pickle and I backed him up. Since the crew was from my sister squadron, I took the communications when they switched to our frequency. They said they were "operating single engine .... pause ... on the left". Some people will take that to mean the left engine was off, and others will read that to mean they were operating on the left engine with the right off. On the platform we interpreted that call the latter way; we thought the crew had the right engine shut down.

To complicate matters for the now heavily tasked crew, their good engine's generator had failed, placing them on the emergency generator. We knew that we would see only the approach light, but in the excellent conditions we thought, "No big deal".

During workups, we had seen a few single-engine Tomcats, and we felt ready for the lineup problems, and for the fact that it would be harder for the pilot to wave off or go around.

Their CCA gave them a good start for glide path but lined up a little left. The pilot overshot to the right around the "in the middle" position and CAG paddles said, "Back to the left for centerline". We saw the wing dip and then... the aircraft disappeared! Because of the full moon, both CAG paddles and I thought the same thing—"He'll be visible any second." We waited. Two very long seconds later, the Tomcat was clearly visible in the moonlight, but with a large right-to-left drift. We immediately called, "Right for line up, right for line up!" One second later, we frantically called, "Waveoff, waveoff, waveoff!" I honestly think that both CAG paddles and I believed that by screaming louder into the radio we could somehow lift that Tomcat over the fuel-laden A-6 tanker and F-14 spotted behind the LSO platform. Maybe it did work, because miraculously, the airplanes did not hit each other. Only a small flash that we thought was the hook hitting the scupper.

It was only after recovering the next airplane—an S-3—that we found out that the F-14's hook had hit the lens, taking out several cut lights on the right side! (Take a look sometime at how far left that is.)

In the cockpit the pilot was fighting for control of the airplane. It was the left engine that was shut down. When he came left for centerline he needed almost full right stick to level the wings. At that time, the large hydraulic demand switched the emergency generator to the low side, dropping several electrical busses, including the one



***...both CAG paddles and I thought the same thing—"He'll be visible any second." We waited. Two very long seconds later...***

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that powers the approach light and the rear cockpit (main) radio.

The Tomcat was at military power and the pilot had a bootful of right rudder and full right stick trying to stop the drift and correct back to centerline. He later told us that he started to take his own waveoff just before the waveoff lights came on. After clearing the ship, the F-14 entered the bolter pattern, now NORDO. The pilot said he had quite a time trying to reset the emergency generator and having it revert immediately to the low mode because of the large stick inputs needed to fly the plane. On the platform, we heard them go by once as they flew their self-contained approach to a low pass, still with no approach light or communications. The MOVLAS had been rigged by now since no one knew the extent of damage to the lens. We discussed using the barricade since CV NATOPS requires it when the hook touches anything but the deck. Both CAG paddles and I looked at each other and vigorously shook our heads. No way.

Fortunately, the squadron CO and other cool heads in CATCC prevailed and they decided to divert the Tomcat

to Wake Island. They had good communications with the crew, who had switched the front-seat radio to control frequency. A successful relight of the left engine aided in the divert and they landed safely.

I walked away from the incident with many lessons that apply not only to the LSO platform, but also tower or CATCC personnel.

First, always know precisely the problem and configuration of the aircraft. If we had known that the left engine was shut down, we would have been ready for the right-to-left drift instead of vice-versa.

Second, compound emergencies require careful consideration of all the possible degradations, like losing the rear-seat radio on the low mode of the emergency generator.

If possible, start the engine rather than recover single-engine at night in an F-14. This engine had been shut down for low oil pressure, but it still operated throughout the divert. A new engine had to be flown in from the U.S., but so what—it beats having to fly in a new plane!

LCdr. Rabens flew F-14s with VF-114. He attended Test Pilot School and served a tour with PMTC. He is currently assigned to VF-213.

**My** nugget pilot and I briefed with the rest of the squadron for a day CQ-fly-on. We had been crewed together for some time and we had developed what we thought were effective tactical responsibilities and good crew coordination.

The carrier was in the usual SOCAL op-area and the weather was supposed to be Case III. Shortly after startup, our section lead developed problems and, with the overhead time drawing closer, we decided to launch individually.

As we checked in with Marshal and Strike, they told us that the ship was making a Case II recovery. They told us to take 800 feet and report a "see-me" at 10 miles astern. Our Turkey (wings at 68 degrees, 350 KIAS) was in and out of the clouds with marginal visibility—certainly pressing the Case II minimums.

Approaching four miles, we picked up the wake and,

finally the ship. My "we can hack it" attitude was obvious in my ICS comments to my "nose gunner." I hoped he would not be distracted from getting us safely set up on downwind and ultimately on deck. Abeam the CV, we focused our attention on finding our interval. Passing the bow, weather conditions deteriorated rapidly, well below Case II criteria. With a conspicuous lack of "low vis" calls, I told my pilot that I was on the radar, clearing for upwind and downwind traffic.

Reasonably certain that we weren't cutting anyone out of the pattern, we rolled into the break three miles ahead of the ship. After about 45 degrees of turn, I needed one last look. At this point, I couldn't see our interval, much less the ship. The weather was definitely beyond my personal hack-it minimums. I strained to see over the right canopy rail. In doing so, I deviated from my normal break pattern of coming inside to monitor airspeed and altitude. I neglected three other personal routines: calling "300 knots," watching the wings move, and reporting the sweep to my pilot. As we were about

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**\$40 Million**

By LCdr. L. Scott Lamoreaux III

# Jet Ski

approach/February 1992





LCdr. Dave Parsons

to roll out on the downwind heading, I came back inside to check the gear speed. I was surprised to hear my pilot call, "Flaps." I immediately looked at the airspeed indicator which was decelerating through 200 knots. I felt the aircraft "squatting."

Although the pilot had moved the wing-sweep mode switch to auto, the wings—unbeknownst to us—had not moved forward to the normal 20-degree landing position.

I glanced at the altimeter and was shocked to see it unwinding through 200 feet. I instantly called for burner and emergency wings while reaching for the lower ejection handle. Although my pilot never did get his hand unglued from the throttles (crammed into zone 5) in time to reach for the emergency wing-sweep handle, his adrenalin-boosted application of full power was enough to keep our Tomcat from becoming a \$40 million jet ski with afterburners.

Once we were safely in the ready room, we talked about our near miss. If the weather is below minimums, speak up and ask for appropriate handling. Don't be

influenced by someone else's lack of initiative. Not all crews have the level of experience. A seasoned vet's we-can-hack-it envelop is not the same as that of a first-tour nugget.

A brief cannot possibly cover how to handle every emergency situation. However, I can't over-emphasize going through what-if situations when you have a chance—such as dull Alert 5 or Alert 15s. Although I had 800 hours in the F-14 at the time of this incident, I had never experienced or thought about what would happen if the wings failed to program forward out of the break. Consequently, we never covered that possibility in our briefs.

Don't let unexpected events disrupt your normal habit patterns. Having to go to the radar just before the break definitely upset my routine, as did taking one last look 45 degrees into the turn. I was behind the aircraft, as evidenced by failing to check the altimeter, missing the calls for 300 knots and wings-on-the-move, and looking for gear speed when, in fact, the gear was down and my pilot was beginning to drop the flaps. ◀

LCdr. Lamoreaux is a RIO with VF-213.

# Newer Isn't Always Better

By Lt. J.M. Kennedy

After a six-month deployment in one of the Navy's oldest carriers, our squadron was anticipating the two-month "cruisette" in the Navy's newest aircraft carrier. We looked forward to occupying brand new spaces and working on a technologically advanced flight deck that was virtually unscarred.

10 Finally the day came for the fly on and CQ. As we brought our E-2C onboard our new home, my copilot and I started to familiarize ourselves with the faces and gestures of the yellow shirts we would depend on in the next few weeks. Although they looked just like the cruise veterans we had on deployment, we quickly realized that the similarities ended there.

My copilot and I were busy re-orienting ourselves to ship ops and the task at hand, the CQ. At first, I didn't pay much attention to the way our aircraft's prop wash was being aimed or if anyone was getting in its way. Then, out of the corner of my eye, I saw a blue shirt get blown down the flight deck. I saw a yellow shirt run up to him and drag him to safety. I didn't think much of it until less than a minute later another blue

shirt tried to push his way through our exhaust; the same thing happened. Now we began to wonder what was going on. It quickly became obvious that the folks working the deck were as green as their ship.

As we neared the end of our CQ period and approached the raised JBD for our last cat shot, the Hummer on the cat went to full power. At that moment, a troubleshooter darted around the back of the JBD, making a beeline in front of our aircraft. He was immediately hit by the prop wash of the E-2 in tension. His legs were blown out from under him. I watched horrified, as the helpless green shirt slid toward our turning prop. Our taxi director darted out to grab him, but the green shirt managed to get to his feet and continue behind the JBD to the other side safely. A yellow-shirted supervisor grabbed him and escorted him off the flight deck.

As my heart rate slowed, I thought

that even if we had been able to feather the prop immediately, the deadly blades would have still hit the deck crewman.

On my previous ship I had never experienced such a close call on the flight deck. All members of the flight deck team were safety conscious and they demanded perfection from everyone who ventured into their workplace. As a result of this attitude, we did not suffer any injuries on the flight deck throughout the cruise.

An older ship may not be as bright and shiny as a new ship, but longevity and experience make it safer. A new ship with a new crew has to establish procedures and a way of doing business. To compound the problem, most of the flight-deck personnel may never have worked on the flight deck before or may be unfamiliar with the new class of ships. The growing process can be deadly.

Lt. Kennedy is an E-2 pilot with VAW-117.





# We Can't Keep Meeting Like This

By LCdr. J.J. Romano

**I**t was a crisp, cold fall afternoon as we departed our home field. The sky was deep blue with scattered cumulus between 3,000 and 7,000 feet, with unlimited visibility. I was the plane commander in the right seat of my P-3, giving another qualified plane commander his annual instrument check. The flight engineer and two aft observers were experienced senior petty officers.

Our departure instructions were standard: runway heading, climb and maintain 3,000 feet. Expect radar vectors.

Climbing through 2,500 feet, at 200 knots, we received clearance to 4,000 feet, with a left turn to proceed on course. The bright afternoon sun seemed like a strobe light at times, as it danced in and out of the clouds.

"A bit bumpy," I thought, "but still a great day to fly."

I called, "Passing 3,000 for 4,000," and the PAC acknowledged. I slid my seat back to look for a chart in the navigation bag behind my seat. I could see the shadows race across the bulkhead as I searched for the chart. Once I found it, I slid my seat back up and resumed my outside scan.

That blue sky was now obscured by a bright white cloud. I looked back inside to verify all was normal. However, something was very wrong. My attitude indicator showed left wing down and almost 20 degrees nose up. I quickly checked the remaining instruments. We were slowing through 155 knots and climbing through 4,700 feet.

At the exact moment that my mind was trying to sort

out all this confusing data, we broke out of the clouds and back into the bright blue ... err ... Boeing 727!

"I've got it!" I called as I took control of the aircraft and pushed the nose hard over. I closed the power levers as we descended back into the clouds.

"We were cleared to 4,000!" I shouted.

I felt my body press against my shoulder straps as we experienced negative G, a very unusual feeling in a P-3.

It was deathly silent in the cockpit until we leveled at 4,000 feet and regained our airspeed. I called aft to make sure the observers were okay.

"That was some ride, guys!" a voice responded. "All's fine back here."

A few moments later, ATC called to inform us that we had overshot the airway and gave us a vector back on course. I acknowledged the vector and repeatedly thanked God for watching over me and my aircraft. I breathed a sigh of relief, knowing I had just averted a disaster or at the very least, a flight violation.

As the flight continued and we discussed what happened, it was obvious that the PAC had had a classic case of vertigo. The rapid climb on a cold day, the mild turbulence, the flicker of the sun between the clouds, and the shadows racing across the instruments all contributed to his disorientation.

The entire sequence—from when I first slid back in my seat until we recovered from our unusual attitude—took less than a minute. That's not much time for a breakdown in crew coordination when you consider how devastating its can be.

LCdr. Romano is a patrol plane commander VP-64.

*However, something was very wrong. My attitude indicator showed left wing down and almost 20 degrees nose up.*

approach/February 1992

# Blue Knight Fright

By 1stLt. Steve Kam, USMC

**It** can be frustrating to be a new guy. I was a new Huey copilot, out of the RAG for about six months with 450 total hours, in my first fleet squadron. We were doing an abbreviated three-month workup and I was anxious to get some training. The Huey detachment went on routine pre-deployment training and I was assigned the role of det bench warmer. Since the bulk of the flying was more advanced than my level of training, I was relegated to mission planning and standing ODO.

The mission that night promised to be an exciting one and the XO, feeling sorry for me, decided to give me a "good deal." A police department MD-500 equipped with FLIR would be filming the action and needed an observer to interpret the timeline for them. I jumped at the chance to go flying and went to meet my pilots. The senior pilot was a friendly old-timer with silver hair and more than 5,000 hours. His copilot was a quiet man in his 30s. Both had earned their wings with the department.

Weather that night was forecasting fog, but at launch time things looked OK and we manned up. I was flying in the back, with my helmet-mounted AN/AVS-6 Night Vision Goggles, and found that I could hear over the ICS, but I had to talk through the boom mike of one of their spare headsets. We launched ahead of the Hueys and headed for our holding area, which the police pilots navigated to with ease using only their mental maps of the city.

At 500 feet we could tell that visibility was falling below minimums and we radioed back for them to scrub



McDonnell Douglas Helicopter Co. via Timm



the mission. I did not feel too uncomfortable since I still had good ground reference and the FLIR was working. When we switched up their homefield tower to divert, there was no answer. Then we switched up International Tower ... no answer. They switched back to NAS tower. "Thank goodness," I thought when the tower responded. Visibility was well below one mile as we began to snoop and poop down the roads, trying to navigate our way back to the field. I suggested that we climb and ask for a GCA.

"No, we can't do that," the police pilot answered. I shrugged it off with a little more than a second thought because visibility was decreasing and tension in the cockpit was increasing. I tried to put away my doubts and thought, "These guys are pros; they know what they are doing." A few seconds later, we were solid in the goo at 500 feet and about 40-50 knots. I flipped up my goggles, unstrapped and began to scan the instruments over their shoulders. I said, "How about that GCA?" my voice climbing an octave. No response from up front. "Four hundred feet and a slight rate of descent," I prodded. The aircraft climbed back to 500 feet. "Watch your airspeed," said the copilot and I noticed that we showed 35 knots indicated.

My adrenalin was pumping now and once again I said, "I really think we ought to climb and ask for that GCA now." Then I saw 400 feet on the altimeter with a 400 fpm rate of descent. "Four hundred feet, 500 fpm rate of descent," I said. No response, except the altimeter unwinding through 350 feet and the VSI indicating 800 fpm down.

"350 feet, 1,000 fpm rate of descent!" Passing 300 feet, I screamed "Power! Power! Power!" The nose

came back and I felt power being added as the copilot said excitedly, "Watch your airspeed. I've got the controls!" I saw zero knots indicated and felt the aircraft shudder and then yaw hard, which threw me back against the cabin door.

Up front, they were both wrestling with the controls and I thought, "Oh, God, I can't believe I'm going to die tonight," and waited for the impact as the aircraft spun wildly. There was no fiery explosion, so I added, "We're spinning! Airspeed, airspeed, airspeed!" more for my own sake than theirs since I was lying on my back, looking up through the cabin window and feeling utterly helpless. Miraculously, I began to see stars through the fog as the yaw slowed. "Keep the climb in. We'll go VFR on top," I said.

At 2,000 feet, it was a beautiful night and we could see the city lights below as well as the fog. My legs were trembling as we found a hole and let down to land. All three of us knew how close a thing it had been and disbelief gave way to giddiness at the thought of

being alive. We took a police cruiser home.

Later, I found out the aircraft was not IFR certified, had no navigation radios, and while the pilots were instrument rated, they had no helicopter instrument time. I could not believe my ears when the copilot said to me, "I guess we should have jumped on that GCA a little earlier," and then found out he had never flown one.

I thanked God a thousand times when I got back to the BOQ, had a stiff drink and several beers, and then called my wife to tell her how much I loved her.

I learned two major lessons that night. No matter where you are flying, or who you are flying with, never think you are just along for the ride. Secondly, never assume the other guy is as current or as qualified as you are, no matter how much time he has or how little you have.

One last note: the senior pilot turned in his wings immediately following this event.

1st Lt. Kam flies the UH-1N with HMM-162.

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Up front, they were both wrestling with the controls and I thought, "Oh, God, I can't believe I'm going to die tonight,"



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McDonnell Douglas Helicopter Co. via Timm

# Heads Up!

By LCdr. Carl Davies, USN (Ret)

Another beautiful day in paradise. To top it off, after a couple of weeks behind a desk pushing paper, I was finally on the flight schedule. It wasn't a particularly arduous mission: just lead a three-plane division to Gitmo. We had almost enough fuel to fly there and back. The weather was perfect for a Caribbean tour: unlimited visibility with only a few puffy cumulus clouds over the islands.

We lined up at the hold-short and my backseater called for takeoff. Tower told us position and hold. Then, as Dash 3 stopped on the runway, tower cleared us for takeoff. Don't you love it when the flight goes as briefed?

I glanced left at my wingmen and gave them the two-finger turnup signal. A movement over Dash 3's canopy caught my eye. A small, light-colored aircraft was turning in the general direction of the initial for the duty runway. I thought it was probably the station C-12.

My engine was rapidly accelerating past 90 percent. Oil pressure and hydraulics looked good. TOP good, controls free, all other gauges normal. My backseater said she was ready. I

exchanged a thumbs up with No. 2. I came off the brakes and the heavy SLUF gradually accelerated. There was hardly any crosswind and we tracked straight down the runway.

Suddenly, at my 11 o'clock, I saw a white civilian twin with its gear down 2,000 feet away. He was at 50-75 feet altitude and closing.

"Heads up for aircraft in the pattern!" I called frantically to my wingmen. My call was partially cut out by a similar alert from the tower. I was also calculating how to avoid creating a huge fireball at the runway intersection.

I was well past refusal speed and too close for a high-speed abort. There was little room for lateral movement, but fortunately the twin seemed to have stopped its descent. I decided to keep the power up and force my aircraft to remain on deck. The twin began a slow left turn, passing over us, at about 50 feet.

Once we cleaned up, and got our heart rates back to normal, we rendezvoused. Our panic was rapidly replaced by anger. Visions of a white twin centered in the gunsight came to mind. We eventually managed some

chuckles and a few unprintable quips when departure complained about a white Aerostar.

NMACs are common here at Key West. We are near the end of a long island chain with the commercial field only four miles away. The clear weather also results in intense VFR traffic, particularly during the tourist season.

This incident was unique, however. A foreign national had rented the twin in Miami and was heading southwest, south of the Keys when he realized he didn't have enough fuel to make his destination.

He called approach, but had some difficulty communicating with the controller who managed to vector him toward the civilian field. Somehow, after his final vector, he saw a runway he liked and went for it, even though the heading and runway weren't even close to his final destination. The civilian tower cleared him to land even though they couldn't see him.

He never saw me or my flight. The only reason he didn't land was that he felt his approach was too high and he waved off.

LCdr. Davies flew with VAQ-33.

*I was also calculating how to avoid creating a huge fireball ...*





PH3 Colkitt

# Stand By, Please

By Lt. Greg Hood

Sometimes a nugget finds it easy to be overwhelmed by the rapid pace of carrier aviation and the experience of those around him.

It was a typical Desert Shield CAP over the Persian Gulf. After pulling the seat pins, I usually strap in by securing the

right and left leg restraint, right and left lap belts, then the right and left shoulder straps. This time, the plane captain and an AE interrupted me as I was connecting my left lap belt. Instead of telling them to wait, I stopped.

The AE had to change the eight-day clock. It would only take a minute, or at least it should have. As he removed the clock, he dropped a screw; we all know what that means. I quickly unstrapped and got out, nervously paying close attention to the approaching launch time.

After several minutes, the AE found the screw and finished replacing the clock. We had 12 minutes until launch. We could make it with luck.

I jumped in and began strapping in. Just as I finished connecting my lap belts, the pilot called, "Arming top and bottom. Canopy clear."

I hadn't finished my prestart checks or strapping in.

"Am I behind," I thought. I quickly decided to remain safe, close the canopy and finish the prestart checks so we could start up and begin alignment. I'd return to the shoulder straps in a minute.

The startup, OBC and plane-captain checks were fast and furious. I powered up the back and to my dismay, couldn't begin alignment.

"There's the problem," I said, "a mispositioned switch." I glanced to the right and saw the Mode 4 checker impatiently waiting.

"OK, OK, I'm getting it," I thought. "Checks good."

Just when I was beginning to catch up, the yellow shirt was trying to break us down.

"Take the alignment," my pilot said. "They have to move us now."

As I fumbled to get my mask on, we rolled out of the chains on our way to the cat. My head was reeling as I tried to anticipate what would come next.

The pilot answered me by calling for takeoff checks. We rapidly went through each item until we came to "seat, armed top and bottom, command eject." My heart froze as I realized that my seat was still safe. Worse yet, my shoulder straps hung loosely over the sides of the seat. How could I have been so stupid? What if we had bypassed the takeoff checklist? The next words I said were, "Stand by."

As I finished strapping in and arming the seat, I thought about ejecting off the cat. I wouldn't have survived. All because I had let the tempo force me out of my normal habit patterns.

Lt. Hood is a RIO with VF-21.





# You've Lost That Warm, Fuzzy R

By LCdr. Ted Carter and LCdr. Mike Roland

**approach**/February 1992





Illustration by Yvonne M. Dawson

# Feeling

**The mission** was certainly better than the average night AIC mission. It was briefed as an opposed WASEX, the second to last cyclic event of the day. Our two F-4 Phantoms were to fly a modified vector logic grid on a 1+45 cycle. Back in the ready room we discussed our fuel ladder and the possibility of a 120-nm bingo to NAS Cubi.

The tactical mission went as briefed. We marveled at the huge buildups of towering cumulus that littered the threat axis. We didn't marvel at the fact that the mid-cycle Texaco was not available. Entering marshal after the mission, USS Midway told us that the launch was delayed and to "max conserve". Our bingo was set at 4.1 since our divert was now IFR.

After several delays, we pushed with the standard one-minute separation. Both Phantoms would be bingo plus one on the ball, which was not all that unusual.

As the pilot of Phantom 1 was preparing to call the ball, a quick glance made it obvious that the deck was not ready. Another delta "4" was in order as both Phantoms were turned downwind. Phantom 1, being the sacrificial lamb, continued downwind and was hooked in at four nm. Air Ops told us that our divert was now VFR, F-4 bingo 3.6. Before we could even call the ball, paddles gave another frustrated "Wave it off, no chance, Phantom," and Phantom 1 proceeded overhead, angels 7 to tank.

With a state of 3.8, Phantom 1 spent two minutes looking for the airborne tanker, then appropriately turned and climbed on a 120-nm bingo profile. Phantom 2 also received a second foul-deck waveoff, calling the ball at 4.0. Phantom 2 got the signal to "tank", angels 10, heading 180 degrees from the divert field. With no tankers in sight and the fuel gauge rocking between 3.7 and 3.6, Phantom 2 decided to bingo and set off for Cubi, 20 nm behind his lead.

As the Phantoms checked in with Strike, we learned that the divert was still VFR. Having been given the proverbial "check's in the mail" gouge about our divert, we switched to approach. We began to lose those warm, fuzzy feelings as we saw those same monstrous thunderstorm clouds building near our divert. As Phantom 1 descended, approach told us that the runway was wet with rain. Both Phantoms would have to trap, forcing Phantom 2 into an opposite-direction shortfield arrestment.

The F-4 bingo charts are calculated for 1,500 pounds on-deck fuel and both Phantoms were below that already. At 10 nm

## Before we could even call the ball, paddles gave another frustrated "Wave it off, no chance, Phantom.,"

from landing, Cubi went completely WOXOF in a steady downpour. Things were now starting to get a little tense.

Both Phantoms turned north toward Clark AFB. Phantom 1 was at 10,000 feet and Phantom 2 was at 20,000 feet. None of the aircrew had ever landed at Clark but the weather sounded much better than our first divert, with a low overcast southwest of the runway.

Phantom 1 checked in with approach, and called emergency fuel with an estimated 10 minutes of fuel remaining. The crew asked for a PAR to runway 2; however, only the ASR with a TACAN final was available. Phantom 2, now 10 miles behind Phantom 1 had 900 pounds, 490 pounds less than Phantom 1. The controller, who was obviously new, provided little help for the now almost basic-weight Phantoms.

The weather was not nearly as good as promised. Phantom 1 broke out at 400 feet, then made an uneventful landing on runway 2 in the mist. Fuel remaining: 590 pounds.

The crew of Phantom 2, now on a five-mile final, could barely make out the runway approach lights. Delaying dirtying up until three miles, they were still in the goo as they leveled off at mins. Although they could not see the runway lights, the approach lights were still visible.

Suddenly, the approach lights blinked twice and then the whole world below went dark.

"Turn on the lights! Turn on the approach lights!" screamed the RIO in Phantom 2.

"Roger, sir," controller said, "we're experiencing electrical problems on base. Please stand by."

The pilot of Phantom 2 pushed the nose over and descended to 100 feet on his radar altimeter, frantically trying to see the runway in the darkness. Seconds ticked by. Phantom 2's crew couldn't believe what was happening as they saw the last 4,000 feet of

the runway quickly pass below.

"Understand missed approach," said the young controller. "Climb and maintain 4,000 feet. Come right 120 degrees." A quick glance at the fuel gauge in Phantom 2 showed zero fuel on the internal tapes and 600 pounds on the totalizer.

"Negative, we are making a teardrop entry to Runway 20," replied the crew of Phantom 2.

Phantom 2 then wrapped up into a turn at 600 feet, the aircrew preparing to eject as well as wondering if they were clear of all obstructions. The controller, intent on giving PAR instructions, was adamant about the low altitude of the Navy Phantom and instructed the crew to wave off.

With no other choice but to disregard the controller, the Phantom rolled out wings level, slightly right of the runway. The pilot put in the final correction and sailed down the runway, safe on deck at last with 400 pounds of fuel in his tanks.

The lessons learned from this nightmare are many. First, know and understand your bingo profiles. Many aircraft such as the F-14 offer a larger cushion for on-deck fuel (2,000 pounds) after a bingo profile. Yet, how comfortable is anyone with an aircraft that has less than 1,000 pounds of fuel remaining?

Second, you can't be too familiar with all possible divers. In this case, the secondary divert had been briefed but not in any detail because we couldn't envision the divert possibility.

Third, if you fly long enough, you will find that the unexpected happens. Knowledge of NATOPS and emergency procedures is only the minimum. Flight simulators are an ideal training tool to practice setting priorities in unusual scenarios. It's not fun stuff and appears unrealistic, but remember—nightmares do come true.

LCdr. Carter is an F-14 RIO with VF-21. LCdr. Roland was an F-14 Selected Air Reserve pilot with VF-1485, assigned to VF-21. He now flies with VF-302.

**During** the early days of our aviation careers, aviation physiologists do their best to give us the worst-case flight scenario with hours of lectures. The short ride up the rails of a dynamic ejection-trainer indelibly stamps this picture on our minds.

One summer night, I learned how a split-second may be all the time you have to make an ejection decision. We were well into workups for my second cruise and I felt on top of the world. I knew my aircraft, its systems and capabilities; I could handle any situation.

Most of the squadron had flown aboard the carrier earlier that day for local SOCAL ops. I was one of the lucky ones still on the beach. All I had to do was fly a late-night FCLP at an offshore field. I was crewed with my roommate from the previous cruise.

The hop was going well as we dirtied up on the approach, slowed to on-speed and descended into an underlying overcast. As I scanned my instruments, I noted an acronym on the tactical information display that told me of a failure in the air-inlet control system. In the seconds that it took for me to tell my pilot, the IMC conditions magnified the disorienting flashes of flame shooting from the intake.

Several seconds later, I heard the words that I never wanted to hear. My pilot said, "I'm losing it! I'm losing it!" I saw 1,000 feet on the altimeter, coupled with a steep rate of descent. The aircraft was rapidly rolling through 90 degrees left angle-of-bank, and I reached down and pulled the lower handle. We were both rescued with no injuries, except to our egos and the loss of seven tubes of blood each.

The investigating team asked many questions, but none more troubling than the one about my decision to eject. The truth was that I never made a conscious decision to eject. Rather, I reacted instinctively. Fear was never a factor in my decision; I didn't get scared about what happened until I reflected on it several days later after the initial excitement had worn off and I looked up the ejection

envelopes. If anything, what I saw reinforced what I did.

I'll never know what in my career helped me make that decision, but I'm sure that it was some time in flight school. Perhaps I can attribute it to the physiologists' sea stories, tempered with the experience of three years in the aircraft.

Most aviators believe that they will not have to eject, and fortunately, the Navy's mishap rates support their belief...in most cases. The fact remains, though, that some of us will find ourselves facing an ejection, and there probably won't be much time to make a "conscious" decision." Decide now, while you do have the time.

Lt. Crisp is a RIO with VF-51.



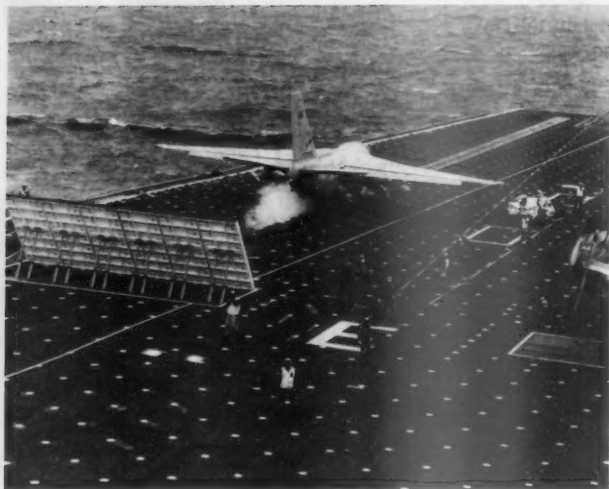
# I Never Want to Hear Those Words

By Lt. Dan Crisp

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# Haven't We Seen This One Before?

By Lt. Thomas A. Monroe



20 We had an FCF "C" hop for a spoiler actuator. Just my pilot and I in a rare single-cycle for the Viking, with plenty of gas and plenty of clear skies.

The catapult officer touched the deck and we launched. Before the pilot could raise the gear, however, he noticed a light in the gear handle, no AOA lights and the nose gear indicating a barberpole. Deciding to stay dirty, we returned overhead for a visual check. With no other S-3 airborne, a Tomcat crew looked at us and said that the gear seemed to be all the way down. We completed all the remaining NATOPS procedures but the problem remained.

There was a divert field 120 nm away, but since we had not touched the gear after takeoff, we decided to bring it aboard. First, we explained our situation to the Boss, then to the Viking rep. Our signal, "Charlie," this event.

Wouldn't you know it? The instant after we dumped

fuel to max trap, the Boss told us to land on the next event. After a quick calculation, we figured we would have 3.0 on the ball. Bingo was 2.4. When it finally was our turn to recover, I asked for an extended downwind and a low approach to let the LSOs take a look. We didn't expect the Boss's reply.

"Why? Aren't you three down and locked?" We discovered later that there was a communication problem between Air Ops and the Boss.

After three passes and three looks, we were down to 2.9 and were still undecided about our recovery. We made it easy for them.

"700 is diverting to refuel and pin gear."

On the climbout 30 nm from mother, the nose gear suddenly indicated down and locked. In our excitement, we started to turn the aircraft around. Heck, bingo was 2.4 and we were 2.8. The pilot and I looked at each other and we knew something was wrong.

"You know," the pilot said, "this is the kind of incident you read about where the crew tries to be heroes. Haven't we seen this one before?"

We turned back toward the divert for a safe landing. We pinned the gear, refueled and returned to find that the problem was a faulty prox switch. Afterward, we found out that the ship had secured flight ops right after our departure so there would not have been a ready deck. Did I also mention that our nose gear started cycling between down-and-locked and barberpole during the approach at our divert?

Never convince yourself you have an "easy" hop. And never let someone else dictate your fate. Once you make the decision to divert or bingo, stick to it. ◀

Lt. Monroe is a COTAC with VS-30.

Lt. Steve Whitaker







It's the Little Things

# That Will Get You

By Lt. Thomas Marotta

Lt. Ken Newbauer

**W**e were 75 miles from mother. So far, the five-hour hop had gone well. We'd gotten fuel from an Air Force tanker and flown a real-world CAP. Strike called and asked us to check the recovery tanker's package.

We rendezvoused and plugged in a descent, 50 miles from the ship. After our first plug was sour, the tanker driver asked us to back out while he recycled the package. While we waited, my RIO started the pre-landing-descent checklist. We were almost to the part about the altimeter when the tanker pilot said he was ready.

We successfully plugged—the tanker was sweet—and watched as he stowed the drogue. Almost immediately, Marshal came up and gave us, “Buster, switch button 6, charlie.” I pictured the skipper pacing the bridge, muttering something about “burning a lot of dinosaurs.” Since gas wasn’t a problem, I poured on

the coals and accelerated as we passed the initial. I broke at the bow and, thinking how Sierra Hotel the vapes must have looked, I descended to downwind.

Simultaneously, the Boss, LSO and my RIO screamed, “Watch your altitude!” My altimeter showed 600 feet and I wondered what all the fuss was about. My RIO said, “I’m showing 400 feet.” I glanced at my radar altimeter; he was right.

The local altimeter setting was 29.52. We had transited a corridor at FL210 with 29.92 set in. While behind the tanker, I cranked my setting down to a “ball park” setting of 29.70, awaiting the actual setting from marshal. Well, five hours is a long time in the great meteorological suck-hole of the Gulf of Oman. Our preflight altimeter setting was way off. Combine this with an interrupted checklist and you have the recipe for disaster.

Fortunately, it was day, case I and I could see the water. Nighttime or IFR might have been different. ◀

Lt. Marotta is an F-14 pilot with VF-21.

*I remember screaming into my mask after an aircraft boltered.*

By LCdr. Kevin Miller

# My Sump Light



PH2 Tracy Lee Didas

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*How* did I allow myself to get here, abeam the ship with a barberpoled nose gear and barricade fuel? There's no time to rig the barricade, hardly time to go through NATOPS properly. Damn! I've got to trap now or make a controlled ejection in less than five minutes. This is my last chance.

I was on my first cruise, on the last day of the Operational Readiness Evaluation (ORE). We were in the Puerto Rican Op Area prior to our TRANSLANT to the Med. I had been out of the A-7 RAG for six months and had made the entire work-up, logging lots of traps.

During each of the two nights prior to the incident, the ops officer had called me in my stateroom telling me to go to CVIC to work on mission-planning folders. The first night two of us nuggets worked from about midnight to 0600 before we were told to quit and get some rest. I flew a hop and stood some kind of duty that day, hitting the rack after dinner only to get a wake-up call at 2300 to return to CVIC. We sleepily started working with our folders when the intel guys said, "Not so fast. Here are new folders and,

oh yes, you will each brief the admiral at 0600." So we went to work.

About 0500, they told us the admiral's brief was called off but to keep working. Later, the plan was for us to launch in four hours to drop shapes on Vieques. We shifted gears to plan for the "real world" hop we would be graded on that morning. We looked up the switchology and release parameters, and reviewed the target-area procedures. My partner would lead the flight.

I was very tired now and run down, having developed a stuffy nose, but we were under pressure to get all our info ready before the brief. Quickly ducking into the wardroom, I downed a cup of orange juice and a danish pastry before hurrying back for the brief.

In the ready room we were met by the CO, XO and the department heads who peppered us with questions about our weapons delivery and fed us with more gouge from their experiences. The XO noticed that I looked drawn and that I was blowing my nose. He asked me if I was up for the

hop. I assured him I was. He said if I wasn't feeling good he would take it. Of course I wanted to fly it (having lost two nights sleep planning it!) and told him, "I'm OK, XO." He

gave me a concerned look, said "OK," and dropped it.

This hop was getting lots of visibility from the ORE observers, but as I

cooked under the hot sun behind the JBD waiting for my turn to launch, all I wanted to do was trap, eat some food and then sleep. The trap would come 2.7 hours later.

Once airborne, the sparkling blue Caribbean perked me up as we joined and we made our way to Vieques, 300 miles to the southeast. The weapon release was uneventful and on the egress a SAR exercise was called away. We went back for a half-dozen strafing runs of the target's north shore. On the way home, we were intercepted by Orange Air fighters. Of course, all this fun cost gas, but it was simulated wartime conditions and we were on the fuel ladder. Under EMCON, we found the ship and entered our holding altitude on the "ladder" at recovery time. Through hand signals we communicated that we each had the same amount of fuel, 3.0.

Flying cruise at max endurance, I snuck peeks at the ship. The launch was late, a big afternoon strike with lots of aircraft. The deck was cluttered with airplanes and the cats were shooting them, but slowly, much too slow for me. Around and around we went. At approximately 1,000 feet I noticed a lone F-14, not one of ours, in Delta with his hook down. It was one of the Orange Air fighters. Some "heavy" out here to bag traps, no doubt! We're fighting a war and he's bagging.

Finally the angle cleared and the Orange Air Tomcat went into the break. Some of the overhead aircraft were now calling their fuel states to tower as they approached minimum first-pass fuel. We were approaching it too, but the air wing recovery had begun and we would be down before long. Besides, lead knew my state; he'd take us to the tanker if we needed it. I certainly was not going to commit a breach of flight discipline by talking on the radio and conveying my low state and desire to land, now. And I was tired—I didn't want to go up to plug.

Meanwhile, the recovery just kept dragging out, lots of foul deck waveoffs and bolters. I remember screaming into my mask after an aircraft bolted. We stayed overhead, and now I was at tank state followed quickly by a low-fuel light

(1.5). I caught lead's attention and through signals, told him my state. He acknowledged with a thumbs up.

"Hey, if he can hack it, so can I," I thought. "I've got 60 traps on this ship; I won't bolter." I knew I was pulling a "fast one" but who would ever know?

Now the Boss started directing jets to the tanker, and another tanker was added overhead to fuel the growing number of low states. I was tired and hungry. Just a few more minutes. Finally at 1.1 I keyed the back radio and told lead, "I've got 1.1."

"OK," he replied and said we would start our approach. After one more lap, we entered the break and as Dash 2, I broke at four miles with 900 pounds—barricade fuel.

I dirtied up and got a barberpoled nose-gear indication. I immediately woke up. Tapping the indicator and cycling the handle did nothing. I called the boss and told him I was abeam with an unsafe nose gear and 900 pounds.

He said, "Roger, 9.0."

I said, "Negative...point nine."

"Nine hundred pounds?" he replied. I could imagine (correctly) that all hell was breaking loose only 1.3 miles to my left. I was directed to fly low up the port side and CAG Paddles told me that the nose gear was down. Before reaching the bow I was climbing and turning abeam, cutting out an A-6. The recovery tanker was directed to hawk me. I should have gone to him 25 minutes before. Rolling in the groove I noticed another A-6 sitting next to the lens, stuck in the gear. On the waveoff I was turning abeam even before reaching the fantail, cutting out more jets. I was looking at 600 pounds now. Three more chances ... maybe.

Reaching abeam, the Boss told me to extend downwind as the deck was foul. One mile behind the ship, the master caution flashed on and I saw what few A-7 pilots see airborne: the sump low light was on (and it wasn't going out). This meant I had only 440 usable pounds of fuel. I told the Boss about the sump light as I turned back to the ship. There was no reply. I called the ball at three-quarters of a mile and trapped.

I didn't know that I had landed on a foul deck. There was trouble with one of the arresting gears, the reason I had to extend off the abeam. The sump light forced me to start back before they were ready. My safety department head told me later that when I was "in the middle," the Boss came over the 5MC and said, "Take him, paddles, take him."

While the squadron mechs were congratulating me on the flight deck for saving the jet, I knew a very different reception was waiting for me below. I honestly don't

# Trap



remember the skipper's words as he sternly "lectured" me about the incident in the (abandoned) ready room. Lead and I followed him to CAG's office. More lecturing. I just stood there in front of CAG, saying, "Yes, sir" a lot, in my smelly flight suit, matted hair, day's growth of beard and droopy eyelids.

He held his thumb and forefinger one-quarter-inch apart and said, "Kevin, you came this close to losing your wings, and possibly your life." Only then did it hit me how close I had come to disaster. We were dismissed and, as we left, the skipper said, "They're grounded, CAG," and sent us to our rooms like naughty children. Another humiliating shot to what was left of my ego.

For virtually the entire cruise the incident was never discussed ... as far as I know!

Then time had passed sufficiently for my squadron mates to needle me unmercifully. Years later, even nuggets would smirk and giggle in my direction whenever the sump light came up during NATOPS training.

24 So, don't land an A-7 with a sump light. While holding overhead and observing the slow recovery I should have gone up to the tanker when it was offered to those of us approaching min first pass, certainly when I hit tank state. Coming into the break with 900 pounds (indicated) left me with no options except a normal trap. If the unsafe nose indication was really for a stuck nose gear, then there would not be enough time to rig the barricade, possibly not enough time to tank, and after the sump light came on, it would not have been an option. I would have been directed to fly alongside for a controlled ejection.

I trusted my flight lead to keep me out of trouble. He was a nugget too, but with a lot of flight time, but with no more than I had at sea, and a designated section leader. My job was

to look good around the ship and stay off the radio. Even use of the back radio for admin purposes was frowned on in my squadron. I "joined up and shut up" and was looking great until I called abeam with an unsafe nose and 900 pounds. Had I told the Boss of my low state earlier he would have had the option to bring me down first or send me to the tanker. As my lead did not do this for me, it became my job. After all, I signed for the jet. In lead's defense, he was inexperienced and tired like me, but I learned a lot about being a flight lead and wingman that day.

Finally, I had no business flying that hop. I was tired, hungry and run down. I was hundreds of miles out to sea in a single-seat jet. Mentally, I was more concerned with my postflight activities than in actually completing the flight safely. I launched because I wanted to show the squadron that I had the right stuff and could hack it when the pressure was on. Canceling, even though the XO offered to take my place, would have thrown a wrench into the squadron flight schedule during this high-tempo operation. All of us, especially nuggets, want to contribute and prove our dependability to our seniors, so we sometimes press it. I pressed my personal limit that day and almost lost a jet. Since I recalibrated my personal limits on that hop, I have canceled out of flights from time to time, and this upset the squadron on occasion. Nevertheless, I'm still here.

Maybe COs really mean it when they preach that during peacetime, there is no mission so important that you must launch with a down aircraft. They also tell us to know our personal limitations. They don't expect us to take an aircraft with only one hydraulic system, nor do they expect us to go flying when we are not up to it. They also expect those of us who wear the wings to make the correct decision every time.

LCdr. Miller flew A-7s with VA-82 and was an F/A-18 FRS instructor pilot with VFA-106. He is currently CAG LSO for CVW-7.

Peter Mersky









# Look for the Overlooked

**Every** naval aviator knows the value of habit patterns. They get us through the routine portions of a hop safely and with good order and discipline. More importantly, they ensure that the small things are taken care of during an emergency. But what happens when circumstances combine to interrupt our normal habit patterns? The answer is simple: a dangerous void develops in our actions that can only be filled by calm and collected reason. We must realize that our normal habit pattern has been interrupted, and proceed with an extra measure of caution, deliberately looking for the overlooked.

My dependance on habit patterns showed itself during an emergency off the cat that required an immediate landing. When the stroke ended, I was surprised (an understatement) by the illumination of all four fire warning lights. I launched into the NATOPS boldface procedures, while the BN called the Boss and told him about the situation and our desire for an immediate landing. He approved our request and told us that we didn't appear to be on fire. I took a couple of deep breaths and completed the landing

By Lt. D.S. Anderson



PH2 Mark Kettenhoffen

checklist. There were no secondary indications of fire, and as I turned off the 180 I began to relax a little. It looked like in the end this would be just another day trap.

As I rolled in the groove, my apprehension increased. I was fighting the stick, and every correction was either too much or not enough. I was also flying very fast and just couldn't seem to work it on speed. It took two hard "attitude" calls to get my hook

down into the wires, and then we just barely picked up the 4-wire.

As we taxied clear of the landing area the reasons for my difficulties became embarrassingly evident. I had difficulty seeing the taxi director over the nose thanks to my seat being in my personal takeoff position: three or four inches down from full up, and tilted forward about two inches.

(Being the shortest pilot in the command, I use this position because it makes reaching the cat grip possible). But I never land with the seat like that. I have to have it full up in order to see the meatball. No wonder I was flying so fast; I was forced to hold the nose down in order to see over it! But why didn't I raise my seat after takeoff? Normally, I always raise it right after

STAB AUG is engaged. A glance at the switch revealed that it had been left off. Without stability augmentation, it's no wonder the aircraft flew like a truck. But why didn't I engage STAB AUG? We always do that immediately after retracting the flaps and slats. We never raised the flaps and slats because we turned directly to the downwind without delay, thanks to four fire warning lights. ◀

Lt. Anderson flew A-6s with VA-95. He is currently assigned to VT-24 as an instructor pilot.

# Over the Edge

By Bud Baer



McDonnell Douglas via Timm

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The squadron flight officer (Shooter 19) would lead the 2 v 1 ACM mission. The CO (Shooter 01) would be Dash 2, and the operations officer would be the bogey. The ops officer was scheduled even though he had asked not to fly because he was to attend instrument ground school that day. The schedules officer was to stand ODO but, with the CO's approval, wrote himself onto the flight schedule as Shooter 14 to replace the operations officer.

Shooter 19 briefed the flight as part of his air-combat tactics instructor (ACTI) work-up, covering out-of-control flight and spin-recovery procedures.

The flight's prestart, start, marshal and taxi went smoothly, except that Shooter 01's Harrier went down in the chocks. He manned up a spare aircraft within 15 minutes. Takeoff, join-up and transit to the ACM area were normal.

The first engagement went as planned. The second began with Shooter 19 and Shooter 01 in a two-mile combat spread at 12,000 feet MSL and 350 knots. Shooter 01 was on the right side of the section. The flight heading was 335 degrees with Shooter 14 on the left perch at 15,000 feet MSL and 375 knots.

Shooter 19 cleared in Shooter 14, who did a standard roll-in and low reversal to a look-up fox two on Shooter 19. Shooter 19 called the section to make a hard port turn, and Shooter 14 immediately turned right to switch and meet Shooter 01 head-on.

Shooter 14 made a left-to-left pass with a 45-degree angle-of-bank and called the pass, which was acknowledged by Shooter 01. Just before the merge, Shooter 14 reversed his turn to cross above and behind Shooter 01 in a left turn.

After the merge, Shooter 01 lost sight of Shooter 14 as 14 crossed 01's flight path and continued the two-circle flight as briefed. Shooter 01 soon caught sight of what he thought was conflicting traffic a few miles away and called, "Knock it off." The "vagrant" aircraft, later determined to be Shooter 14, was passing through 7,000 feet in a shallow, nose-low right turn. It did not appear to be in trouble. Shooter 14 did not acknowledge the "knock-it-off" call. Shooter 01 made several calls for 14's position with no response. The aircraft he had in sight continued to lose altitude.

Meanwhile, Shooter 19 saw the same aircraft at four to six miles. It appeared to be 30 degrees nose-low with the wings level and rocking slightly. Expecting the Harrier to recover, both 01 and 19 watched 14's descent. In a 30-degree dive with the left wing down, Shooter 14 flew into an inland waterway. His squadronmates saw no ejection or in-flight breakup. They set up high and low orbits over the impact position and called for a SAR helo.







## Shooter 01 made several calls for Shooter 14's position with no response.

The VSR tape recovered from the wreckage showed that, immediately following the head-on pass, the aircraft violently departed controlled flight to the right. One second later, the video recording of the HUD was interrupted when the AC generator failed. Evidence

suggested that the pilot was looking aft and left at the time of departure when his helmet became jammed between the ejection seat and the canopy, causing a 4.5-inch fracture of the helmet. The helmet was wedged in firmly, and the pilot's neck was broken by the G forces during the departure.

The AMB's report said pilot error was the major cause factor. The pilot was "under extreme self-imposed pressure" to perform well in an ACM environment because of recent events at the squadron.

Investigators discovered that the roll channel switch of the SAAHS (stability augmentation and attitude hold system) and the Q-feel switch, were both in the off position. The pilot had turned them off, hoping to gain maneuverability advantage. The roll channel gives the Harrier the majority of its departure resistance (DEPRES) capability at high AOA. With the switch off, this capability is severely diminished. With the Q-feel switch off, the forces required to produce rudder pedal travel at high air speeds, and, thus, rudder movement, are greatly reduced.

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Investigators surmised that while twisting in his seat to look back to the left, the pilot probably depressed the right rudder pedal slightly. This, combined with degraded departure resistance, resulted in a violent departure that killed him. As a result of this mishap, the NATOPS coverage of the SAAHS and DEPRES systems was expanded.

The AMB linked the pressure Shooter 14 felt he was under with his turning off the SAAHS roll channel and the Q-feel switches. The board also concluded that as the aggressor for a sortie that included the CO and one of the other pilots who was in training to be an ACTI, Shooter 14 may have felt this was an opportunity to prove his ability to fly ACM to the CO.

*This mishap is an example of the pressures many JOs feel when joining their first fleet squadron. They sense a need to prove themselves and establish a solid reputation. Many of these pressures are self-imposed. They often look for that little extra something to give them the edge over their contemporaries. Tragically, Shooter 14 got more than he bargained for. — Capt. Kyle J. Andrews, USMC, AV-8 analyst, Naval Safety Center.*



Mishap investigators laid out the Harrier's wreckage on the hangar floor to establish a sequential order of damage. From this, they determined the angle of impact, the flight path angle, the approximate airspeed and other essential evidence to find the cause of the mishap.





Left to right: LCpl. M. D. Ruholl, USMC; Capt. T. F. O'Keefe, USMC

Capt. T.F. O'Keefe, USMC  
LCpl. M.D. Ruholl, USMC  
HMM-264

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Capt. O'Keefe (HAC) and LCpl. Ruholl (crew chief) were 30 minutes into a functional check flight when they had a hard time moving the tail-rotor pedals in their UH-1N. Cockpit indications were normal.

Capt. O'Keefe turned back toward USS *Guadalcanal* (LPH-7) and began troubleshooting the hydraulics system and the stability and control augmentation system (SCAS).

At 10 miles from the ship, the No. 1 hydraulic system's warning light began to flicker and the crew felt increased resistance in the pedals. LCpl. Ruholl broke out the PCL and read through the procedures for loss of tail-rotor pitch change.

Capt. O'Keefe called center and declared an emergency, asking that the deck be cleared from spot 7 through spot 4 for a slide-on landing. LCpl. Ruholl monitored the gauges. About four miles from the ship, after contacting the tower, Capt. O'Keefe found that the pedals were stuck.

He adjusted the power and set up for a long, shallow approach to the aft spot. While decelerating and descending, the nose of the Huey began to yaw right. The pilot maintained airspeed to minimize yaw and maintain alignment with the deck. LCpl. Ruholl continually cross-checked the instruments and provided his pilot with status reports.

Arriving over the deck edge at five feet and 10-15 knots, Capt. O'Keefe simultaneously increased collective and reduced the throttle to land the aircraft while keeping it aligned with the deck. After reducing the throttle, he regained minimum control of the pedals and landed the aircraft.

Lt. Keith Ayres  
Ltjg. Jess Umphenour  
ADAN Frank Chiovatero  
VRC-50

The US-3A launched from USS *Nimitz* (CVN-68), which was in the Gulf Of Thailand. The COD's destination was RTAB U-Tapao, Thailand. The pilot raised the gear but the left main-gear indicator was barberpoled.

An S-3 tanker from the carrier's air wing joined on the COD to check its gear. The Viking's crew saw that the US-3A's left main landing gear's shock strut had separated from the main strut and was hanging loose from the draglink brace and tension strut. The COD refueled from the tanker and diverted toward Singapore, which was the nearest suitable field with arresting gear.

En route to Singapore, Lt. Ayres (AC) and Ltjg. Umphenour (copilot) coordinated NATOPS procedures while ADAN Chiovatero (plane captain) prepared the passengers for an emergency field-arrested landing.

Lt. Ayres flew his approach with a minimum rate of descent to touch down, holding the wings level even after catching the arresting gear. The aircraft stopped with its left wingtip two feet above the ground.

Similar gear failures have caused Class C damage to other S-3s. Lt. Ayres made sure that his aircraft sustained only damage to its left main gear. The US-3A was repaired and flown back to NAS Cubi Point five days later.



Left to right: Ltjg. Jess Umphenour; Lt. Keith Ayres



# BRAVO ZULU

Capt. Mark Cravens, USMC  
Capt. Mark Lobbezoo, USMC  
VMO-2

Capt. Cravens (PIC) and Capt. Lobbezoo (NAO) launched from King Abdul Aziz Naval Base, Saudi Arabia in the early morning hours of February 18, 1991. They took off in deteriorating weather to fly a night, FLIR reconnaissance and FAC(A) mission along the border of Kuwait and Saudi Arabia. The weather was solid overcast from 800 feet to 16,000 feet.

After patrolling at 800 feet off the east coast of Kuwait, Capt. Cravens and Capt. Lobbezoo left the target area and climbed to 16,000 feet toward VMC to hold over the Saudi Arabian town of Khafji. During their climb, they remained IMC but did not encounter any icing. The only other aircraft on station was a Marine EA-6B holding above; the pilot of that aircraft did not report any icing.

After holding approximately one hour after their first reconnaissance pass, Capt. Cravens and Capt. Lobbezoo received a report from a Marine Corps ANGLICO team of armored personnel carriers (APCs) in front of them. The DASC told the OV-10 crew to make another pass to locate

the APCs.

Approximately five miles into Kuwait, the Bronco made an instrument penetration and immediately ran into ice and snow. The engine inlets and wings took most of the ice. Capt. Cravens told his backseater to expect a flameout. Capt. Lobbezoo updated the LORAN to the nearest emergency field, Mishab Airfield in northern Saudi Arabia.

Capt. Cravens increased his rate of descent and prepared for an emergency airstart. The ice was collecting on the wing and propellers, and reduced the size of the engine inlets to one-half of their normal size. Ice on the canopy eliminated forward visibility.

Passing through 10,000 feet, the left engine flamed out. Capt. Lobbezoo declared an emergency and directed a course change to the south, out of Kuwait and toward Mishab. Passing through 4,000 feet, the rate of icing slowed and finally stopped. The overcast began to clear and the aircraft found clear air at 1,000 feet.

Capt. Cravens made a successful airstart, and after evaluating their situation, Capt. Lobbezoo canceled the emergency. The two Marines continued their mission below the overcast at 800 feet and determined that the reported enemy movement was coalition forces.

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Left to right: Capt. Lobbezoo, USMC; Capt. Cravens, USMC

# Clearance to Crash?

By Lt. Jeffrey J. Laugle

**Night** FCLPs weren't going real smoothly. Paddles hadn't been able to get the tower to turn the lights up on the runway for full stops and a mixed batch of aircraft in the pattern made for many waveoffs and go-arounds. Confusion reigned as paddles gave posit-and-holds and cleared-for-immediates.

Adding to the goat rope, the LSOs—one or two for each different type of aircraft—were sharing their little shack with seven other wanna-be's (switch pilots) waiting for their turn in the pattern.

We had finished our sixth pass and were told to make a full stop on the next one for a crew switch. As we rolled wings level in the groove, we still didn't have clearance to land because of aircraft on the runway. So, we had to power up, find our interval, and turn downwind for another try.

This time, we got our landing clearance, but not until just after the 45. Just before we touched down, we could hear paddles clear an S-3 for a posit-and-hold. Normally, that's not too big of a deal because an E-2C+ can usually make the early off to the left of the runway at the diagonal, for taxi back to the hold-short for a crew switch. The S-3 would have time to take off before the next aircraft rolled in the groove. Even if we missed that exit, we could make a right turnoff, a little farther down. Tonight, however, that was not going to happen. Since we had launched with nearly a full bag of gas, the aircraft didn't slow enough to make it safely off either side and we had to roll long to keep from smoking a tire or a brake.

Following standard procedure I called, "604 for back taxi." Almost instantly the next thing we heard on the radio was from paddles.

"707, uh... cleared for immediate take off."! Listening to the tape playback I couldn't hear 707 roger his clearance, but I could hear, "604 for back taxi," being repeated, again. The next transmission was for one of the other aircraft at the hold-short to continue to hold and for the "air-

craft at the 45" to "take it around."

By this time, we had the airplane facing back up the runway with our twirlies and taxi lights on. We could see the S-3 accelerating right at us! On the tape we could hear a garbled "abort, abort, abort," which I think was me. Then a garbled transmission from the LSOs. Finally, over both paddles' frequencies and on guard, loud and clear, "Abort takeoff, abort takeoff on the left, abort takeoff!" from an alert ground observer in the tower.

"707 aborting," came the reply.

We made a mad dash for the off-duty, just missing the runway edge lights on the right. As we finally cleared the active, the S-3 appeared to be less than 500 feet away. It was slowing, but it was still approaching us at approximately 80 knots. We swapped seats and jumped back into the pattern for my passes.

After a double crew-switch, we hopped in the van for a ride back to the hangar from the LSO shack. I was mad. But after talking to other people who were out there that night, the question of who was at fault led to some good lessons learned.

Perhaps the largest contributing factor to the whole, unsafe situation was an over-tasked LSO trying to run a night pattern, with three different types. He was distracted by other people and their conversations. Another major factor was his reluctance to allow one of the two other LSOs to help until it was almost too late. Remember, we are a team.

Secondly, do not accept a takeoff clearance until you are sure the runway is clear and available. Ultimate responsibility rests with the pilot at the controls.

Thirdly, the AC in the tower, was paying attention to what was going on out on the runway. His call over guard and paddles frequencies was the one the S-3 heard. No matter where you are or what your job is at the time, when you see an unsafe situation developing, do what you can to help correct it.

On a final note, as a result of this incident, LSOs at NAS Miramar are no longer allowed to issue takeoff clearances and can only issue clearances to land on the LSO-controlled runway (24L).

Lt. Laugle is an E-2C pilot with VAW-112.

## We could see the S-3 accelerating right at us!





# Prowler on Ice

By Lt. Kevin Bernier

**I launched** into the hazy darkness of the Arabian Gulf night. The 58K cat shot felt good and, after confirming the shot with a quick check of the instruments, I scanned the black sky for other aircraft. Our Prowler climbed effortlessly through a thick cloud layer, breaking out into the clear. It was exhilarating to be airborne again and part of another combat strike.

Our strike package consisted of four A-6 Intruders with Mk-82 bombs, two F-14 Tomcats, an E-2 Hawkeye, and our EA-6B Prowler. All aircraft checked in with the strike lead and began the long trek to the target, a Republican Guard Unit in southern Iraq.

Suddenly, our cockpit began to get very cold. Our air conditioning system had run amok, causing only cold air to circulate throughout the cockpit. We couldn't stop the constant flow of cold air, and our NATOPS checklist did not mention the problem. We had to deal with this problem using only headwork.

As with most of the strikes over the past few weeks, a Prowler was required; our absence was a briefed "no-go" criterion. This left us with two choices: either return to the carrier and abort the entire strike, or continue with the mission and suffer through the cold.

If those Mk-82s could destroy Iraqi tanks, fewer coalition troops would die in the coming ground war. But just how cold would our cockpit get? Would we be able

to concentrate on our mission? Lastly, after hours in the cold, would our pilot still be able to trap? This seemed to be one of those often discussed cases of operational necessity versus safety. To complete our mission, we would have to take an acceptable risk to the aircraft and the aircrew.

We decided that the strike was important enough for us to endure the cold, so we pressed on. The two-hour flight dragged by in excruciating pain; the constant blast of cold air kept the temperature in the cockpit at about 25 degrees Fahrenheit. The cold slowly sapped our alertness and numbed our bodies, making even rudimentary tasks (such as changing frequencies) difficult.

We completed the strike though, and returned to the boat for a 3-wire... well, maybe it was a 1-wire. The A-6s destroyed numerous revetted tanks and the

mission was a success. Our decision to continue with the flight seemed to be the correct one. However, while my feet thawed later that night, I thought upon our decision.

At the time of the malfunction, continuing with the flight seemed to be the right choice. We had never had this type of problem and aborting a strike because of cold air might have looked foolish. However, we did not know how the intense cold would hinder our performance.

A few days later, we used the experience gained from this failure. Flying on a similar mission, in the same plane, we experienced the same malfunction. Knowing the unsafe condition that the first failure created, we aborted.

We discussed the situation with the other crewmembers and found that they had also thought about our first experience. Our crew decided that when air-conditioning system failed in a full-cold mode, the best choice was to abort.

Therefore, the question remains, did we have to risk the aircraft the first time? There really is no correct answer since our aircrew did not have a definite procedure for the first failure. We had a problem for which no clearly correct solution existed, and we made a well-considered decision.

Although NATOPS defines reliable procedures for most failures, it does not cover some situations. It is during these situations, when the aircrew is confronted with a difficult decision, that experience and good headwork must prevail. ◀

Lt. Bernier is an ECMO with VAQ-131.



# Is My Blood Cold Yet?

By Lt. J.M. Ingalls

**Fighters** train to the hard deck, usually 5,000 feet above the ground or highest solid cloud deck. The idea is that if a fighter pilot gets into trouble, he'll have a safe margin for recovering. Training to an invisible deck also teaches altitude awareness, which is particularly important to those of us who fight where the sea and sky can blend together and eliminate essential visual cues.

Those who break the hard deck usually receive the attention they deserve. As embarrassing as it must be to be gunned (OK, OK, as embarrassing as it is to get gunned), it's far more humiliating to become a "rocks kill".

However, things happen in the heat of battle and most of us have at one time or another made a last ditch move without checking the altimeter and flown through the deck, pulling mightily but earning the inevitable "knock it off, rocks kill" call.

My squadron was hosting another squadron for some dissimilar air combat training. As a new guy fresh out of the RAG, I was pleased to be chosen to receive a back-seat ride in their premier fighter. We briefed the hop as a defensive ACM 1 v 1, similar, both planes being piloted by the visiting squadron's pilots. The hard deck was set at 5,000 feet over the operating area.

I got a good workout during the first two set-ups as the defensive fighter, and was becoming impressed with the pilot's ability to hold off his opponent's attacks.

The last engagement began with the attacking fighter at five o'clock and a half mile—a difficult position for the attacked fighter to disentangle himself from. The flight spiraled down at G loads of eight to nine which got lighter as we ran out of airspeed and ideas at the hard deck. One last idea apparently came to my pilot as I felt the aircraft buffet

heavily and the nose move violently toward the ocean below.

Ninety degrees nose down and zero airspeed at 4,500 feet sent my hands to the ejection handles at either side of my seat. I then began to call out altitudes as we passed them rapidly... 4,000, 3,500, 3,000 ... My anxiety decreased just a little at 2,500 feet with the windscreen still filled with waves when the pilot said, "I've got it, I've got it."

We bottomed out at just under a 1,000 feet. Ejection might have looked like the foolish choice at that time, but it wouldn't have mattered anyway. I had delayed the decision long enough that I probably wouldn't have survived the ejection.

The flight home was uneventful, but as we got out of the aircraft and walked back to the hangar I asked a couple of questions. To the attacking fighter, "How come you guys didn't call knock it off on that last one?" His answer satisfied me a little when he replied that he figured it was a moot point and that we had our hands full. Then, I said to my pilot, "Man, I can't wait to see the tape on that one; the waves were getting pretty big."

His reply ran my blood cold. "I turned off the recorder before I made the move."

Lt. Ingalls flies with VF-111.

**I then began to call out altitudes as we passed them rapidly... 4,000, 3,500, 3,000 ...**



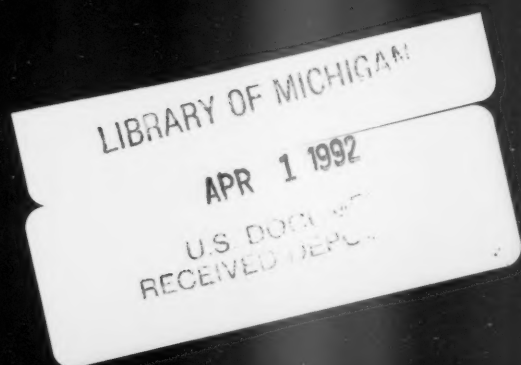
**They're fast as bullets and will  
stop you dead in your tracks...**

# **Props**



Poster idea contributed by VAW-177 Safety Dept.

# Preflight your



Rick Mullen

# HEED

